



# GGOS, GEO, and the Interoperability of Portals

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Jet Propulsion Laboratory
California Institute of Technology
Pasadena, California, USA

**GGOS Days** 

October 31 to November 2, 2017 Vienna, Austria



#### Our Mandate

#### **GEO Vision**

To realize a future where decisions and actions, for the benefit of humankind, are informed by coordinated, comprehensive and sustained Earth observation information and services.

#### **GEO Mission**

GEO's mission is to connect the demand for sound and timely environmental information with the supply of data and information about the Earth.

Advocacy for broad, open data policies helps ensure that the data collected through national, regional and global observing systems is both made available and applied to decision-making for global priorities including The Sustainable Development Goals, The Paris Agreement on climate change, The Sendai Framework for Disaster Risk Reduction and Aichi Targets of The Convention on Biodiversity.

#### **GEO Value**

GEO is a partnership of 104 Member governments and the European Commission; and 109 Participating Organizations comprised of international bodies with a mandate in and/or use of Earth observations.

GEO convenes expertise from across different disciplines to coordinate their activities and promote broad and open data polices. The GEO Workplan 2017-2025 brings together experts to ensure global collaboration, identify gaps and reduce duplication in the areas of Biodiversity and Ecosystem Sustainability; Disaster Resilience; Energy and Mineral Resources Management; Food Security; Infrastructure & Transportation Management; Public Health Surveillance; Sustainable Urban Development; and Water Resources Management.

Together, the GEO community is creating a Global Earth Observation System of Systems (GEOSS) to better integrate observing systems and share data by connecting existing infrastructures using common standards. There are more than 200 million data resources in GEOSS that span all GEO's thematic areas.

#### Contact

#### **Contact Us**

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7 bis, avenue de la Paix Case postale 2300 CH-1211 Geneva 2 Switzerland Follow Us on

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What we do

#### **GEOSS**

ABOUT GEOSS

GEOSS EVOLUTION

#### **About GEOSS**

A central part of GEO's Mission is to build the Global Earth Observation, Systems (GEOSS). GEOSS is a set of coordinated, independent Earth Observation, information and processing systems that interact and provide access to diverse information for a broad range of users in both public and private sectors. GEOSS links these systems to strengthen the monitoring of the state of the Earth. It facilitates the sharing of environmental data and information collected from the large array of observing systems contributed by countries and organizations within GEO. Further, GEOSS ensures that these data are accessible, of identified quality and provenance, and interoperable to support the development of tools and the delivery of information services. Thus, GEOSS increases our understanding of Earth processes and enhances predictive capabilities that underpin sound decision-making: it provides access to data, information and knowledge to a wide variety of users.

This 'system of systems', through its Common Infrastructure (GCI), proactively links together existing and planned observing systems around the world and support the need for the development of new systems where gaps currently exist. It will promote common technical standards so that data from the thousands of different instruments can be combined into coherent data sets.

The 'GEOSS Portal' offers a single Internet access point for users seeking data, imagery and analytical software packages relevant to all parts of the globe. It connects users to existing data bases and portals and provides reliable, up-to-date and user friendly information - vital for the work of decision makers, planners and emergency managers.

For users with limited or no access to the Internet, similar information is available via the 'GEONETCast' network of telecommunication satellites.



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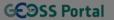
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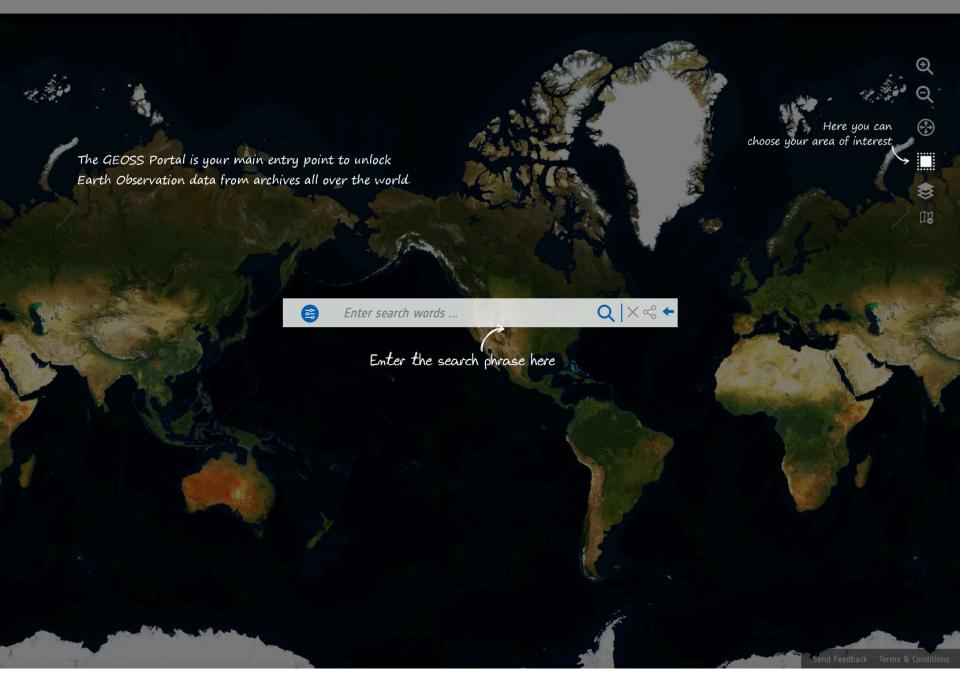
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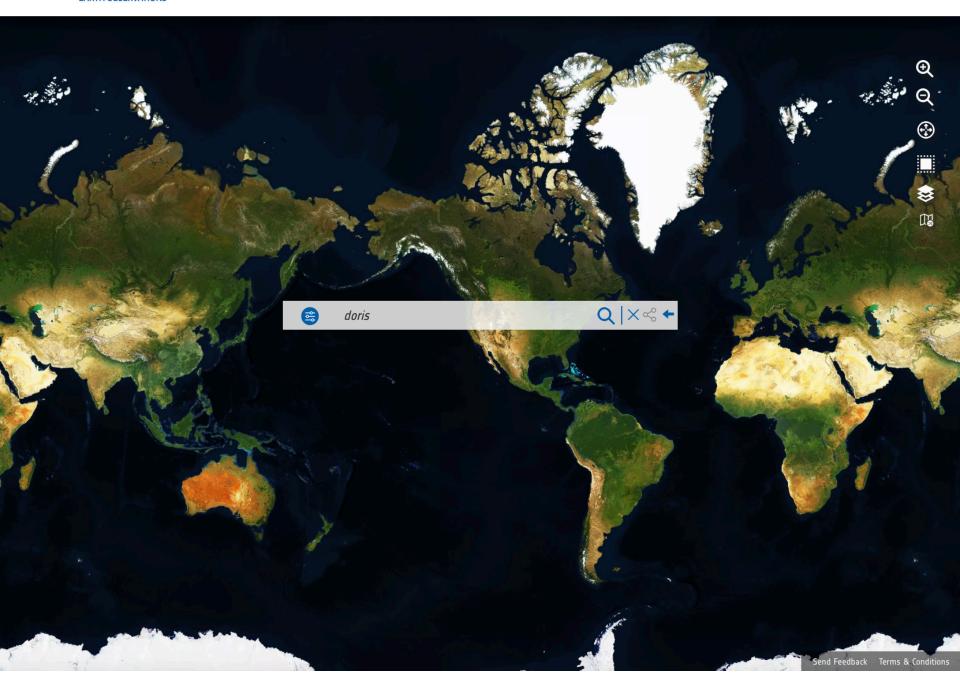






















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3 recent views

CDDIS\_DORIS\_products\_positions > Doppler Orbitography by Radiopositioning Integrated on Satellite Time Series of Station ...

(Organization: CDDIS)

Station position and velocity solutions (weekly and cumulative) in Software INdependent EXchange (SINEX) format derived from analysis of Doppler Orbitography by Radiopositioning Integrated on Satellite (DORIS) data. The solutions include daily values of Earth Orientation Parameters (EOPs). These pro

Collection start date: 1990-03-31

















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CDDIS DORIS products ionosphere > Doppler Orbitography by Radiopositioning Integrated on Satellite Ionosphere Product from ...

(Organization: CDDIS)

Ionosphere correction values derived from analysis of Doppler Orbitography by Radiopositioning Integrated on Satellite (DORIS) data. These products are the generated by analysis centers in support of the International DORIS Service

Collection start date: 2001-01-01















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## CDDIS\_DORIS\_data\_rinex > Doppler Orbitography by Radiopositioning Integrated on Satellite Range-Rate Observation Data (RINEX ...

Resource preview not available





Resource preview

The Doppler Orbitography by Radiopositioning Integrated on Satellite (DORIS) was developed by the Centre National d'Etudes Spatiales (CNES) with cooperation from other French government agencies. The system was developed to provide precise orbit determination and high accuracy location of ground bea ...

Collection start date: 2008-06-20





(Organization: CDDIS)



















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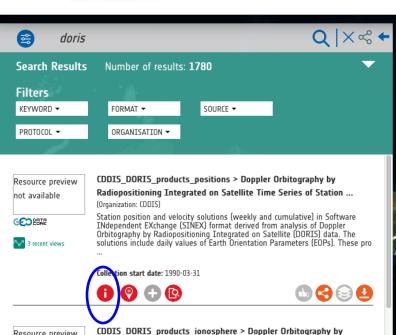












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Collection start date: 2008-06-20























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Search Results

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(Organization: CDDIS)

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CDDIS\_DORIS\_products\_positions > Doppler Orbitography by Radiopositioning Integrated on Satellite Time Series of Station Positions/Velocities Product from NASA CDDIS

Station position and velocity solutions (weekly and cumulative) in Software INdependent EXchange (SINEX) format derived from analysis of Doppler Orbitography by Radiopositioning Integrated on Satellite (DORIS) data. The solutions include daily values of Earth Orientation Parameters (EOPs). These products are the generated by analysis centers in support of the International DORIS Service (IDS). Time series of station coordinate solutions in Station Coordinate Difference (STCD) are also generated by the IDS analysis centers. Weekly solutions represent the IDS contribution to the International Terrestrial Reference Frame (ITRF) determination.

Contact information

Contributor:

Delivery point:

Postal Code:

Country:

E-mail address:

Role: pointOfContact

Data identification

File identifier: C1000000020-CDDIS 1214

Parent identifier: UUID-c1932a12-5c08-48c1-9e1c-e90261b70ae3

Hierarchy level:

Date stamp:

Date language: eng

#### Descriptive keywords

CDDIS

IDS > International DORIS Service

CRYOSAT-2 > CryoSat-2

GROUND STATIONS > Ground Stations

HY-2A > HaiYang-2A

JASON-1 > Jason-1

JASON-2 > Jason-2

SPOT-2 > Systeme Probatoire Pour l'Observation de la Terre-2

SPOT-3 > Systeme Probatoire Pour l'Observation de la Terre-3

SPOT-4 > Systeme Probatoire Pour l'Observation de la Terre-4

SPOT-5 > Systeme Probatoire Pour l'Observation de la Terre-5

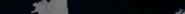
TOPEX/POSEIDON > Ocean Topography Experiment

DORIS RECEIVER

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DORIS RECEIVER

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CDDIS DORIS products ionosphere > Doppler Orbitography by Radiopositioning Integrated on Satellite Ionosphere Product from ...

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CDDIS DORIS products ionosphere > Doppler Orbitography by Resource preview

> Radiopositioning Integrated on Satellite Ionosphere Product from ... (Organization: CDDIS)

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Resource preview











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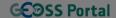


CDDIS DORIS products quaternions > Doppler Orbitography by Radiopositioning Integrated on Satellite Quaternions from NASA

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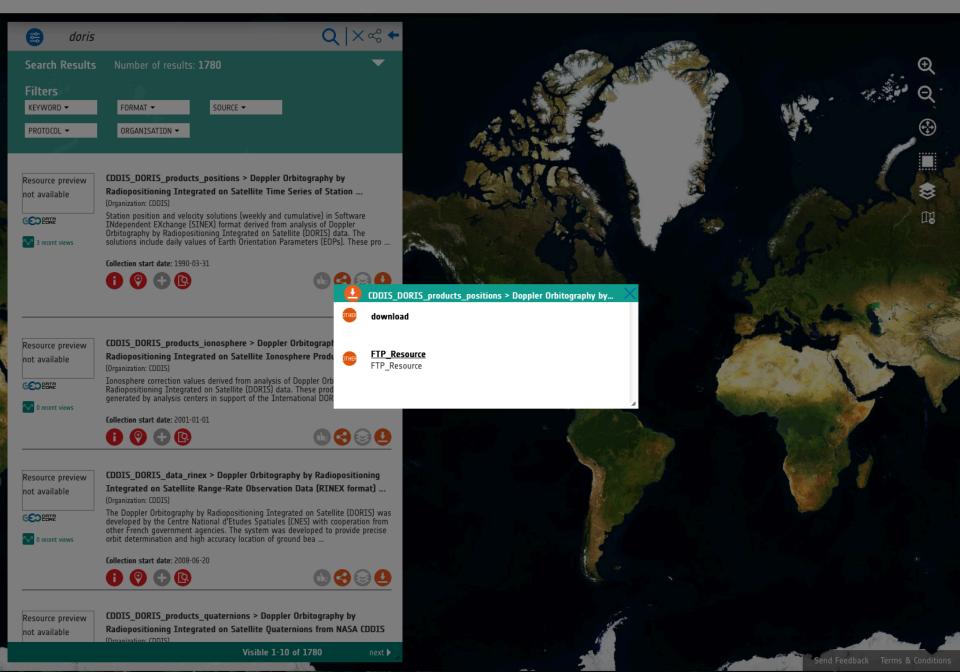
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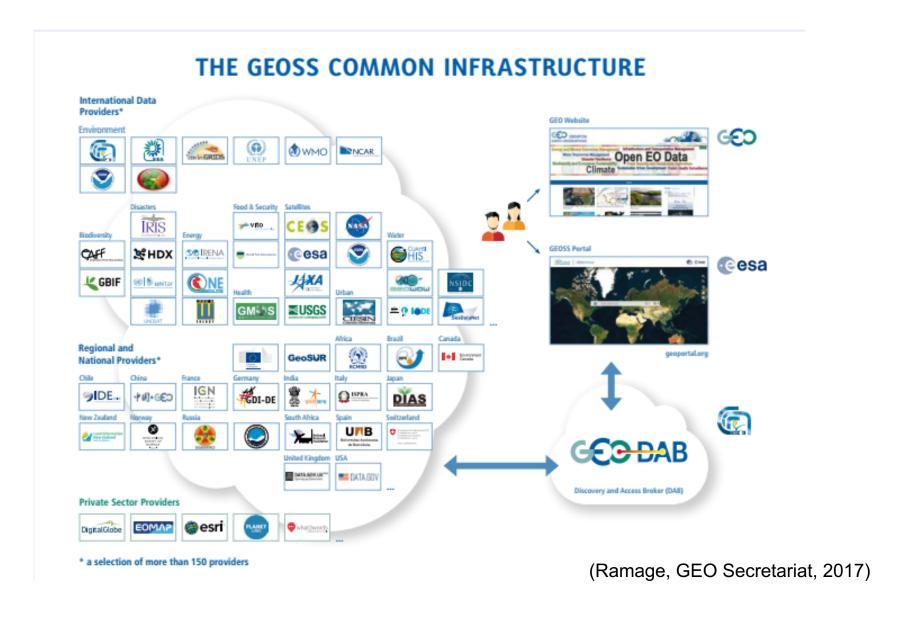


# Index of ftp://cddis.gsfc.nasa.gov/doris/products/

Up to higher level directory

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2002campaign		3/14/03	12:00:00 AM
2003campaign		12/12/03	12:00:00 AM
2010campaign		12/2/10	12:00:00 AM
apod dpod		3/17/17	8:45:00 AM
еор		2/16/17	10:21:00 AM
geoc		2/16/17	10:23:00 AM
iono		2/10/03	12:00:00 AM
orbits		11/25/14	12:00:00 AM
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sinex_series		4/20/17	10:27:00 AM
stcd stcd		4/20/17	10:26:00 AM

# **GEOSS Common Infrastructure (GCI)**



Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not constitute or imply its endorsement by the United States Government or the Jet Propulsion Laboratory, California Institute of Technology.

# Questions

- GGOS Portal at BKG
  - Functionality?
  - Status?
  - Continue development?
- Resources to develop GGOS Portal
  - Issue call for participation?
  - Horizon 2020 proposal?
    - Scope: Geodesy support of UN Sustainable Development Goals <a href="https://sustainabledevelopment.un.org/sdgs">https://sustainabledevelopment.un.org/sdgs</a>
      - Could support IAG/GGOS involvement in GEO, CEOS, UN GGIM SCG, etc.
      - Could support development of GGOS Portal
    - Precedent: Horizon 2020 support of ConnectinGEO and ENEON https://www.connectingeo.net
- Management of GGOS portal development
  - GGOS Coordinating Office?
  - GGOS BNO Committee on Data and Information Systems?

